

## INTERGOVERNMENTAL AGREEMENT

BETWEEN  
THE STATE OF ARIZONA  
AND  
THE CITY OF CHANDLER

Project No. M-950-6-501

THIS AGREEMENT, entered into this 22nd day of September, 1980, pursuant to Arizona Revised Statutes, Sections 11-951 through 11-954, as amended, by and between the STATE OF ARIZONA, acting by and through the ARIZONA DEPARTMENT OF TRANSPORTATION, hereinafter called "STATE", and the CITY OF CHANDLER, hereinafter called "CITY",

WHEREAS, STATE is empowered by A.R.S. Section 28-108 to enter into this Agreement and the Director of the ARIZONA DEPARTMENT OF TRANSPORTATION has delegated to the undersigned his authorization to execute this Agreement on behalf of the STATE; and

WHEREAS, CITY is empowered by Article I, Section 1.03 of the Charter for the City of Chandler and A.R.S. Section 11-951 through Section 11-954, as amended to enter into this Agreement, and acting by and through its duly elected governing body, has by that certain resolution attached hereto and incorporated herein as Exhibit "A" resolved to enter into this Agreement and has authorized the undersigned as its representative to execute the same on behalf of said CITY; and

WHEREAS, the parties hereto have previously concluded an agreement dated January 25, 1979, for the joint improvement of State Route 87-93 (Arizona Avenue), which called for CITY to provide, operate, and maintain a retention basin with a capacity of 83 acre feet of water for the storm drainage system which was an integral part of said improvement; and

WHEREAS, in order to dispose of the water that will accumulate from said storm drainage system and thus complete the system, it is now necessary to make provision for the acquisition, installation, and operation and maintenance of the required pump and related valves, pipe and other incidentals.

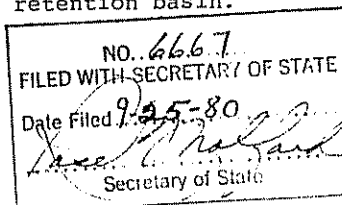
THEREFORE, the parties hereto covenant and agree as follows:

STATE shall:

Pay to CITY the sum of TWENTY-THREE THOUSAND FIVE HUNDRED AND NO/100 DOLLARS (\$23,500.00), as its sole obligation under this agreement, to be used to purchase the necessary parts and equipment.

CITY shall:

1. Use the \$23,500.00 from STATE to purchase the required pump, pipe, valves, and other incidentals for this project.
2. Install and make operative the items in paragraph No. 1.
3. Operate and maintain same at its sole expense.
4. Indemnify and save STATE harmless from all liability however arising to any and all persons whomsoever, whether for personal injuries or otherwise and from any claims of any person of damage to or loss of property by reason of the installation, operation, and maintenance of the pump, pipe, valves, and other incidentals or by reason of anything done or permitted to be done by CITY, its officers, agents, employees, or contractors in and about the area of the aforesaid retention basin.



5. Release and does hereby release STATE from any further obligation, financial or otherwise, related to the aforesaid storm drainage system and retention basin and appurtenances which lie outside of the right of way limits of State Route 87-93(Arizona Avenue).

This Agreement shall be filed with the Secretary of State and shall become effective on the filing date.

Attached to this Agreement and incorporated herein by reference is Exhibit "B" which is a copy of the written determination of the appropriate attorney that CITY is authorized under the laws of this State to enter into this Agreement and that it is in proper form.

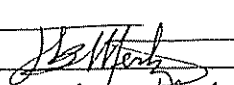
All parties are hereby put on notice that this Agreement is subject to cancellation by the Governor, pursuant to Arizona Revised Statutes, Section 38-511.

IN WITNESS WHEREOF, the parties have executed this Agreement the day and year first written above.

CITY OF CHANDLER  
~~DEPARTMENT OF TRANSPORTATION~~

STATE OF ARIZONA

BY:   
James D. Gott  
Title: PUBLIC WORKS DIRECTOR

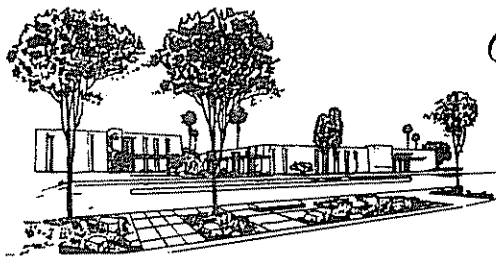
By:   
Title: Acting State Engineer

ATTEST:

  
CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY  
See Attached Letter



*Municipal Building*

# *City of Chandler*

OFFICE OF CITY ATTORNEY

*200 North Chippewa Place  
Chandler, Arizona 85224  
Telephone: 963-3444*

August 5, 1980

Arizona Dept. of Transportation  
Highways Division  
206 South 17th Avenue  
Phoenix, AZ 85007

RE: M-950-6-701  
CHANDLER URBAN AREA  
Denver St. - Knox Rd.  
Agreement for Drainage of the  
Denver School Retention Basin

Dear Sir:

This letter is to certify that I have reviewed the Intergovernmental Agreement between the State of Arizona and the City of Chandler relative to the above-referenced project and find that the City has the authority to enter into said Contract through Article I, Section 1.03 of the Charter for the City of Chandler and A.R.S. Section 11-951 through 11-954, as amended.

Respectfully submitted,

*Clifford J. Frey*  
Clifford J. Frey

CJF/rl

EXHIBIT "B"

RESOLUTION

BE IT RESOLVED, on this 22nd day of July, 1980, that I, W. A. Ordway, Director of the Arizona Department of Transportation have determined that it is in the best interests of the State of Arizona that the Highways Division of the Arizona Department of Transportation enter into an intergovernmental agreement with the City of Chandler to share the cost of pumps, related valves and other incidentals for the Denver School Retention Basin which was made a part of the comprehensive drainage plan for the City of Chandler, including drainage for Arizona Avenue (S.R. 87).

Therefore, authorization is hereby given to draft said agreement, which, upon completion, shall be submitted for approval and execution.

A handwritten signature in dark ink, appearing to read 'W A Ordway', is written over a horizontal line.

W. A. Ordway, Director

Arizona Department of Transportation

RESOLUTION NO 898

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, AUTHORIZING ACCEPTANCE OF FUNDS AND SIGNING THE INTER-GOVERNMENTAL AGREEMENT WITH STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION.

WHEREAS, the Mayor and City Council of the City of Chandler, Arizona, desire to provide proper and safe drainage in conformance to the City Code; and

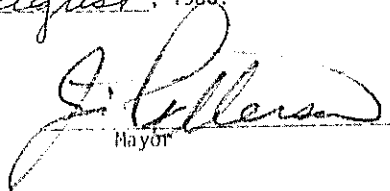
WHEREAS, the storm water from Arizona Avenue is drained to the Denver Retention Basin which lacks the capability to dissipate the collected water in conformance to the City Code; and

WHEREAS, there is a shared responsibility between the City of Chandler and the Arizona Department of Transportation to insure that proper drainage from the Denver Retention Basin does occur,

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF CHANDLER, ARIZONA, AS FOLLOWS:

1. That the City of Chandler and the Arizona Department of Transportation enter into an agreement for funds to purchase drainage equipment and provide for account installation to provide proper drainage of the Denver Retention Basin; and
2. That the Director of Public Works be authorized to enter into such agreement with the Arizona Department of Transportation for the City's receipt of \$23,500 and the City's commitment to install, operate and maintain the drainage equipment.

PASSED AND APPROVED by the Mayor and Council of the City of Chandler, Arizona, this 28<sup>th</sup> day of August, 1980.

  
Mayor

ATTEST:

  
City Clerk

C-E-R-T-I-F-I-C-A-T-I-O-N

I HEREBY CERTIFY THAT the above and foregoing Resolution No. 898 was duly passed and approved by the City Council of the City of Chandler this 28<sup>th</sup> day of August, 1980, and that a quorum was present thereat.


  
City Clerk

EXHIBIT "A"



OFFICE OF THE  
**Attorney General**

1801 WEST JEFFERSON STREET  
FOURTH FLOOR  
PHOENIX, ARIZONA 85007

ROBERT K. CORBIN  
~~XXXXXXXXXXXX~~  
ATTORNEY GENERAL

INTERGOVERNMENTAL AGREEMENT  
DETERMINATION

A. G. Contract No. 79-51 which is an agreement between public agencies has been reviewed pursuant to A.R.S. § 11-952, as amended, by the undersigned Assistant Attorney General who has determined that it is in proper form and is within the powers and authority granted to the State or its agencies under the laws of the State of Arizona.

No opinion is expressed as to the authority of the remaining parties, other than the State or its agencies, to enter into said agreement.

DATED this 23<sup>rd</sup> day of January, 1979.

ROBERT K. CORBIN  
Attorney General

A handwritten signature in cursive script, reading "James R. Redpath".

JAMES R. REDPATH  
Assistant Attorney General



OFFICE OF THE  
**Attorney General**

1801 WEST JEFFERSON STREET  
FOURTH FLOOR  
PHOENIX, ARIZONA 85007

ROBERT K. CORBIN  
ATTORNEY GENERAL

INTERGOVERNMENTAL AGREEMENT  
DETERMINATION

A. G. Contract No. 80-593, which is an agreement between public agencies, has been reviewed pursuant to A.R.S. § 11-952, as amended, by the undersigned Assistant Attorney General who has determined that it is in proper form and is within the powers and authority granted to the State or its agencies under the laws of the State of Arizona.

No opinion is expressed as to the authority of the remaining parties, other than the State or its agencies, to enter into said agreement.

DATED this 15<sup>th</sup> day of September, 1980.

ROBERT K. CORBIN  
Attorney General


Assistant Attorney General  
Transportation Division

MEMO NO. 238

August 5, 1980

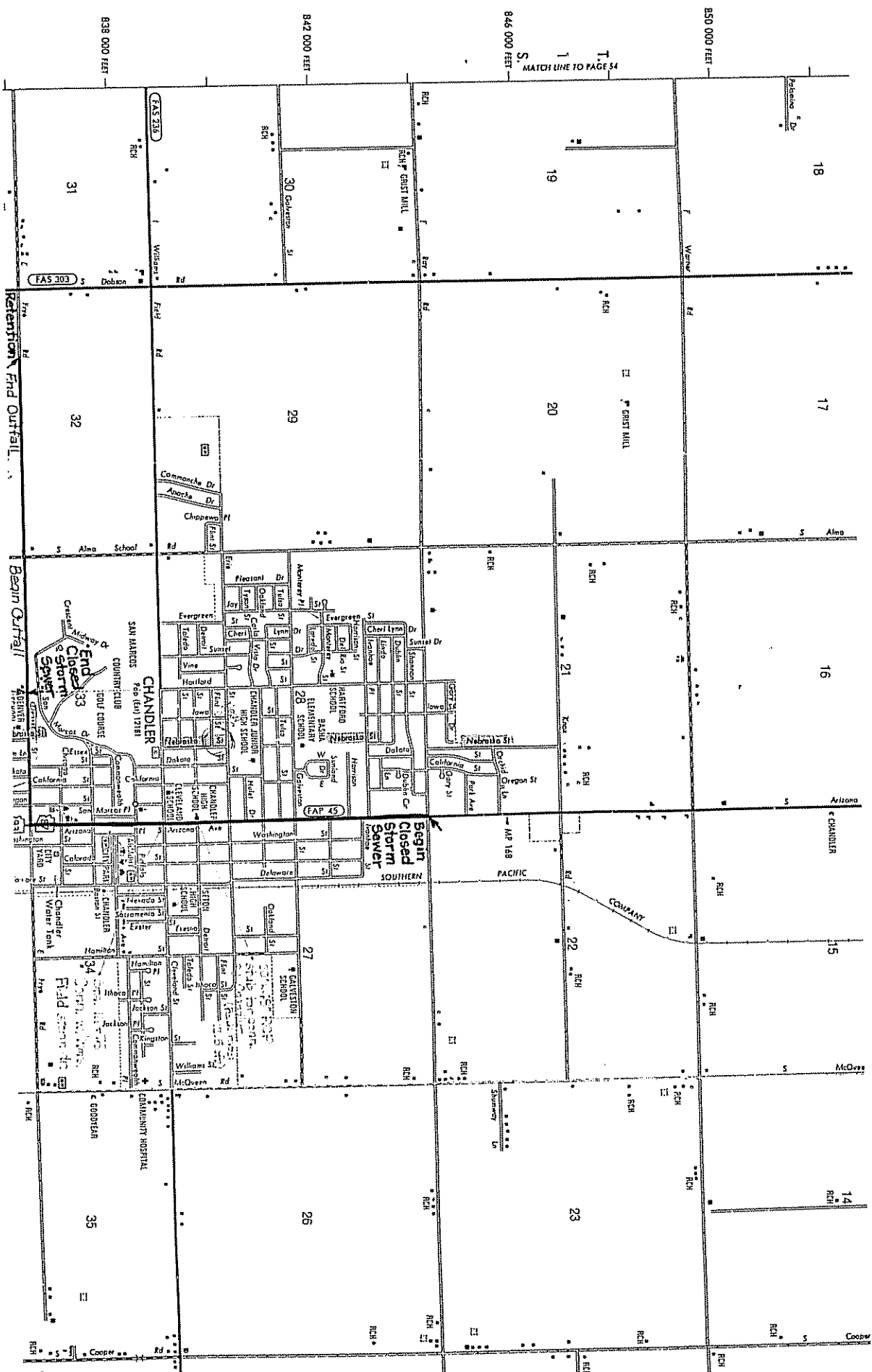
TO: JAMES GOFF, PUBLIC WORKS DIRECTOR  
FROM: ARCHIE FERGUSON, DEPUTY CITY ENGINEER  
SUBJECT: Intergovernmental Agreement - AZ & City  
(Denver Retention Basin Drainage)

I have reviewed the intergovernmental agreement. It is my opinion that the amount of money tendered by the State represents fair compensation for the work which must be done. Further, the safeguards and releases called out in the proposed agreement are appropriate and acceptable to this department.

  
Deputy City Engineer

AEF:ak





INTERGOVERNMENTAL AGREEMENT

BETWEEN  
THE STATE OF ARIZONA  
AND  
THE CITY OF CHANDLER

AGREEMENT NO. \_\_\_\_\_  
PROJECT NO. M-950-6-701

THIS AGREEMENT, entered into this 25th day of January, 1979, pursuant to Arizona Revised Statutes, Sections 11-951 through 11-954, as amended, by and between the STATE OF ARIZONA, acting by and through the ARIZONA DEPARTMENT OF TRANSPORTATION, hereinafter called "STATE", and the CITY OF CHANDLER, hereinafter called "CITY",

WHEREAS, STATE is empowered by A.R.S. Section 23-108 to enter into this Agreement and the Director of the ARIZONA DEPARTMENT OF TRANSPORTATION has delegated to the undersigned his authorization to execute this Agreement on behalf of the STATE; and

WHEREAS, CITY is empowered by A.R.S. Section 9-672 to enter into this Agreement, and acting by and through its duly elected governing body, has by that certain resolution attached hereto and incorporated herein as Exhibit "A" resolved to enter into this Agreement and has authorized the undersigned as its representative to execute the same on behalf of said CITY; and

WHEREAS, the parties hereto, in the interest of the public safety and convenience, wish to jointly improve State Route 87-93 (Arizona Avenue) within the incorporated limits of CITY from Denver Street to Knox Road; and

WHEREAS, an integral part of said improvement shall be the provision for a drainage system that will accommodate storm drainage water from the highway as well as from the CITY.

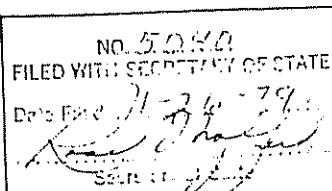
NOW, THEREFORE, in consideration of the mutual covenants hereinafter to be kept by all parties, it is mutually agreed as follows:

STATE shall:

1. Design and construct improvements to Arizona Avenue from Denver Street to Knox Road, including a storm drainage collection and disposal system with a retention basin in accordance with plans approved by both parties hereto.
2. Provide for a connection to said system of the existing Williams Field Road 36" storm drain at approximate Station 111+75.
3. Provide a 42" RCP stub in the vicinity of Detroit Street to which CITY may connect a pipe culvert to drain the area between the highway and the Southern Pacific Railroad.

CITY shall:

1. Provide monetary contribution to the project in the sum of FOUR HUNDRED NINETY-FIVE THOUSAND AND NO/100 (\$495,000) DOLLARS, of which \$370,000 will come from reserve funds and State shall credit City the sum of approximately \$125,000 for which City shall transfer and assign to State its share of uncommitted Federal Urban Systems Funds for the next two federal fiscal years. The \$370,000 shall be deposited with State on or before the date that State awards the contract for the construction of said system.



M-950-6-701, Denver St.-Knox Rd. (Chandler) 1/25/79

2. Provide a retention basin site in the vicinity of the Nebraska St. and Elgin St. intersection of a size adequate to accept gravity flows from the storm drain system for 33 acre-feet of water.
3. Grant and hereby does grant to State the right to enter upon the existing rights of way of city streets to perform any work necessary to accomplish the objectives of this agreement.
4. Operate and maintain all drainage system facilities outside of the Arizona Avenue (State Route 27-23) right of way limits, including but not limited to the outfall pipe, channel and retention basin.

This Agreement shall remain in force and effect until the work herein embraced has been completed in accordance with the terms of the Agreement or until earlier terminated by either STATE or CITY upon thirty (30) days' written notice of that intent, except, however, that the parties hereto shall retain any continuing obligations contemplated by this Agreement. In the event of such termination a determination shall be made by both parties hereto as to the benefits each shall derive from the construction done as of the date of termination and a pro rata refund made to each party reasonably commensurate with such benefits.

This Agreement shall be filed with the Secretary of State and shall become effective on the filing date.

Attached to this Agreement and incorporated herein by reference is Exhibit "B" which is a copy of the written determination of the appropriate attorney that CITY is authorized under the laws of this State to enter into this Agreement and that it is in proper form.

IN WITNESS WHEREOF, the parties have executed this Agreement the day and year first written above.

CITY OF CHANDLER  
DEPARTMENT OF TRANSPORTATION

STATE OF ARIZONA

By: [Signature]  
Title: Mayor

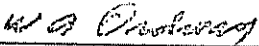
By: [Signature]  
Title: Director

WITNESSED:  
[Signature]  
CITY CLERK

RESOLUTION

BE IT RESOLVED on this 11th day of January, 1979, that I, W. A. Ordway, Director of the Arizona Department of Transportation, have determined that pursuant to Arizona Revised Statute 26-108, it is in the best interest of the State of Arizona, acting by and through the Highways Division of the Department of Transportation, to enter into an Intergovernmental Agreement with the City of Chandler for the improvement of Arizona Avenue (S. R. 87) which shall include a storm drainage system.

Therefore, authorization is hereby given to draft said Agreement, which, upon completion, shall be submitted for approval and execution.

  
\_\_\_\_\_  
W. A. ORDWAY, Director  
Arizona Department of Transportation

RESOLUTION NO. 811

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, AUTHORIZING THE CITY TO ENTER INTO AN AGREEMENT WITH THE ARIZONA DEPARTMENT OF TRANSPORTATION TO IMPROVE STATE ROUTE 87-93 (ARIZONA AVENUE) WITHIN THE INCORPORATED LIMITS OF THE CITY FROM DENVER STREET (FRYE ROAD) TO KNOX ROAD.

WHEREAS, the parties hereto, in the interest of the public safety and convenience, wish to jointly improve the State Route (Arizona Avenue).

WHEREAS, an integral part of said improvements shall be the provision for a drainage system that will accommodate storm drainage water from the highway as well as from the City.


WHEREAS, through an Intergovernmental Agreement, the City will share in the cost of the construction of the drainage system.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Chandler, Arizona, as follows:

SECTION I. That the City of Chandler, Arizona is authorized to enter into an agreement with the Arizona Department of Transportation to improve State Route 87-93 (Arizona Avenue).

SECTION II. That the Mayor of the City of Chandler is authorized to sign such an Agreement.

PASSED AND APPROVED by the Mayor and Council of the City of Chandler, Arizona this 11<sup>th</sup> day of January, 1979.

  
MAYOR

ATTEST:

  
City Clerk

C E R T I F I C A T I O N

I HEREBY CERTIFY that the above and foregoing Resolution No. 811 was duly passed and adopted by the City Council of the City of Chandler, Arizona, this 11<sup>th</sup> day of January, 1979, and a quorum was present thereat.

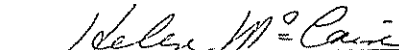
  
CITY CLERK


EXHIBIT "A"

City Attorney's Certification

January , 1979

This is to certify that the City of Chandler is authorized under the laws of the State of Arizona and the City Charter to enter into an intergovernmental agreement to improve State Route 87-93 (Arizona Avenue) within the incorporated limits of the City from Denver Street (Frye Road) to Knox Road.

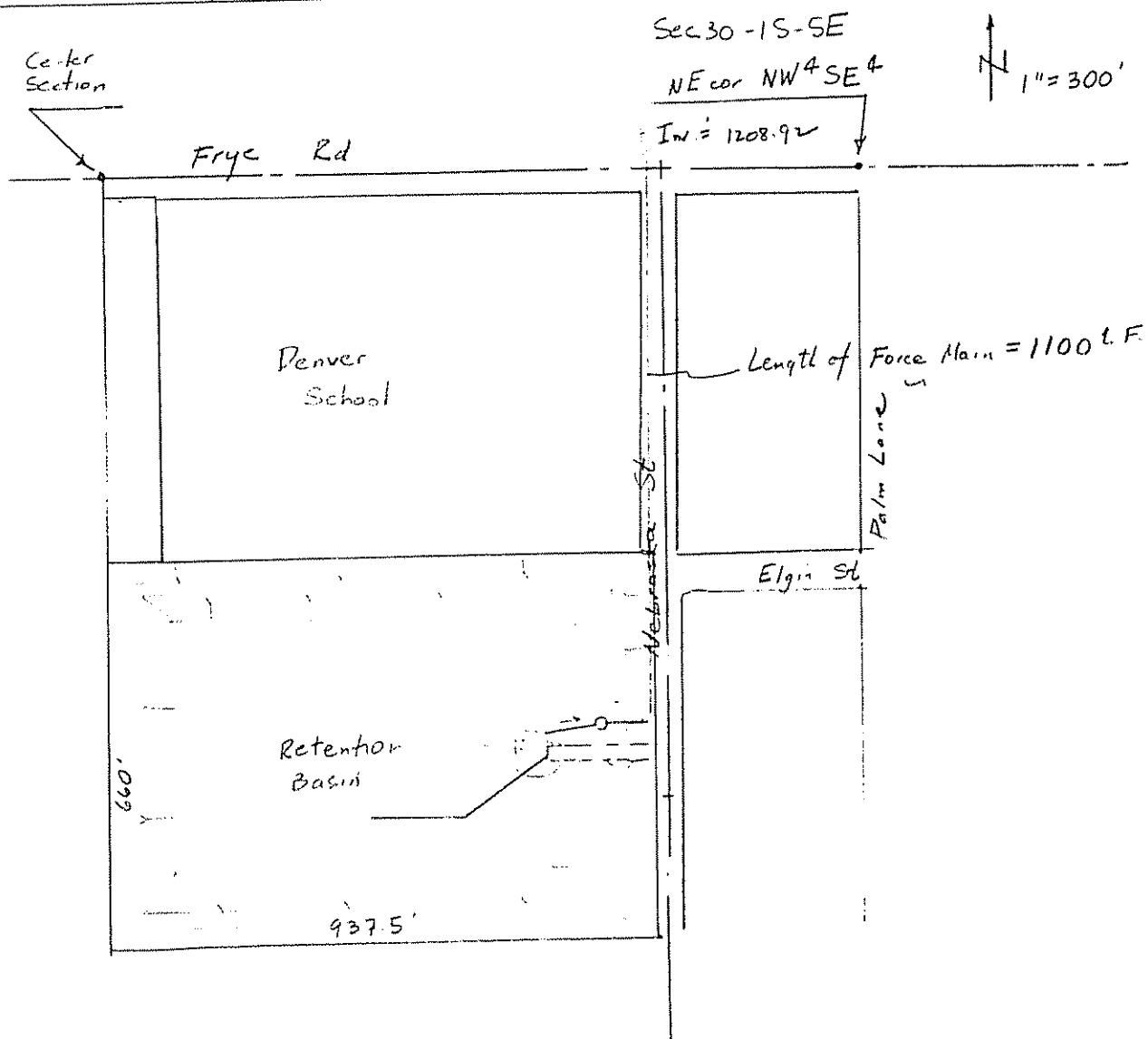
This agreement is acceptable as to form.

  
John H. Dick  
City Attorney

ADAM, HAMLYN, ANDERSON  
CONSULTING ENGINEERS, INC.

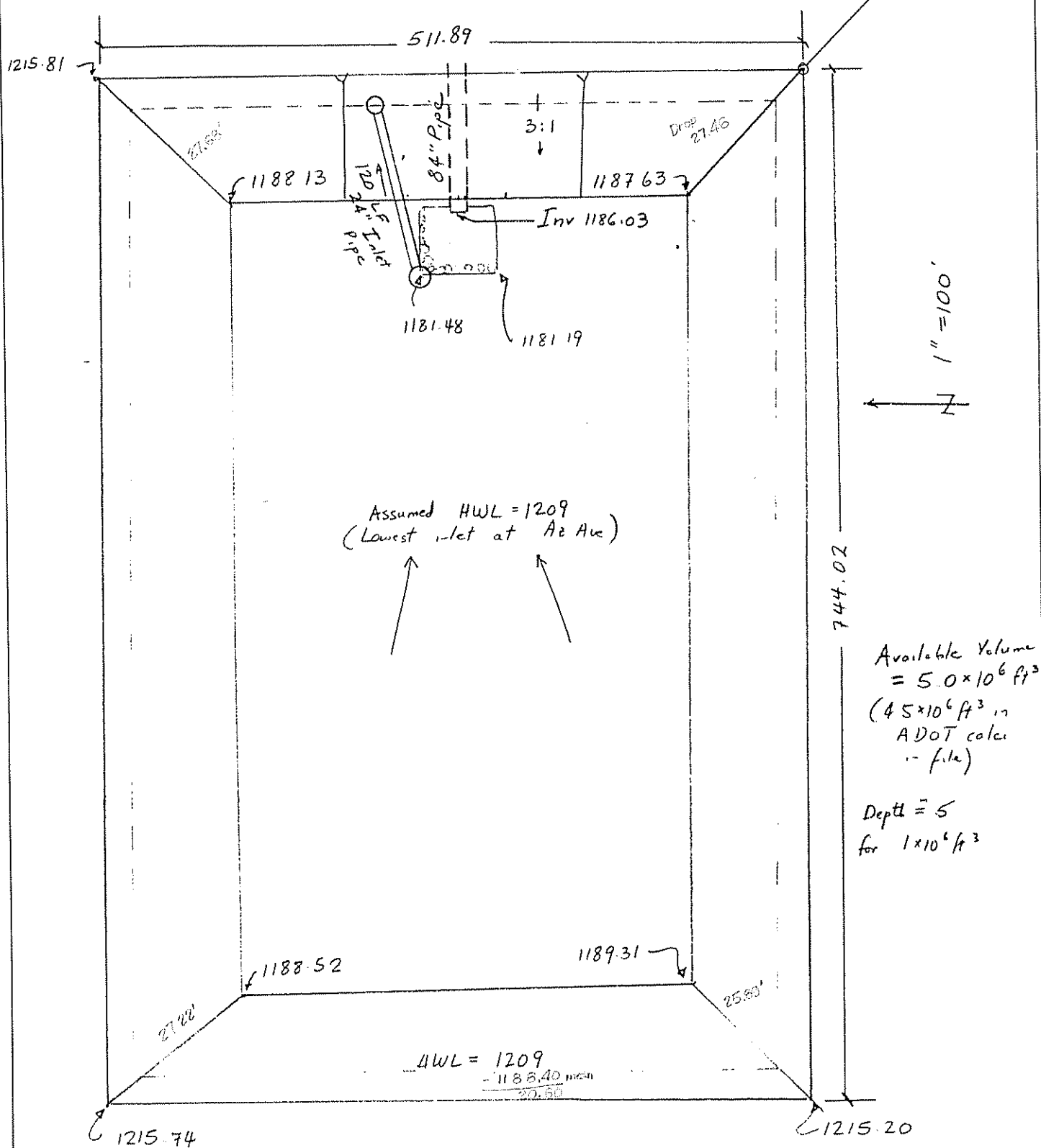
Denver Retention Basin  
Drainage

JOB NO. L-8045F SHT. NO. 1  
DATE: 6/12/80 OF 8  
BY: JRA

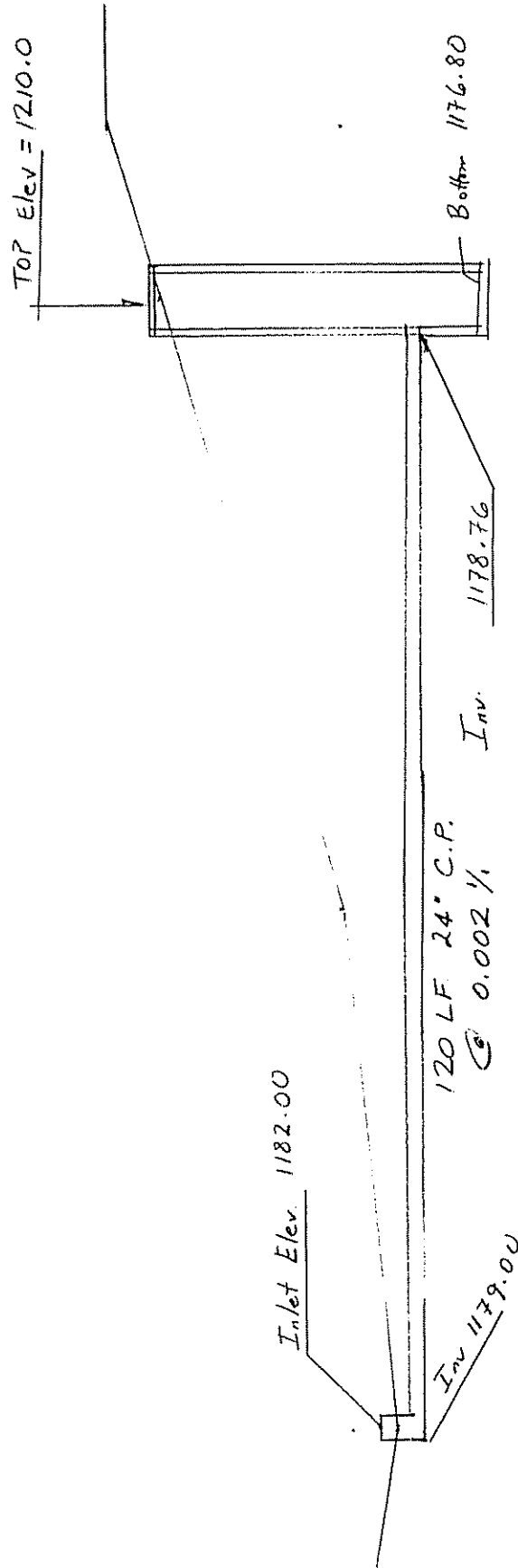


ADOT Benchmark - SE Corner Basketball Court EI = 1209.93

E/ 1215-09



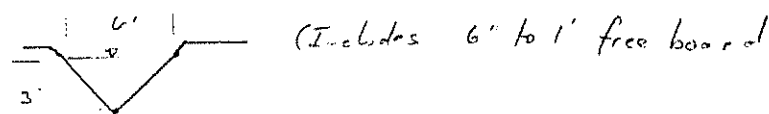




Check receiving capacity of tailwater ditch at Frye Rd  
Tailwater Ditch to Alma School is a lined V-shaped ditch with 30" pipe culverts and runs along the north side of Frye Rd. At Alma School a 30" Culvert conveys the water west across Alma School Rd and south to a dirt tailwater ditch along the south side of Frye Rd extended "

The slope of the ditch is  $0.002$  ft/ft which approximates the typical E&W slope of 10' drop per mile length

The flow capacity of the ditch is



$$A = \frac{1}{2} 6 \times 3 = 9 \text{ ft}^2$$

$f =$

$$W.P. = 2 \sqrt{2 \times 3^2} = 5.66'$$

$$R = 1.59'$$

$$R^{2/3} = 1.365'$$

$$Q = \frac{1.49}{0.012} A R^{2/3} S^{1/2}$$

$$= \frac{1.49}{0.012} (9)(1.365)(0.002)^{1/2} = 68.2 \text{ cfs}$$

Check 30" Culvert Flowing full w/o entrance/exit losses

$$Q = \frac{1.49}{0.012} \left( \frac{2.5^2 \pi}{4} \right) \left( \frac{2.5}{4} \right)^{0.67} (0.002)^{1/2} = 19.9 \text{ cfs}$$

Restrictions would be ulvert however anticipated flows are far less than stream capacity.

Consider using same pump as Ray Rd Pump Station Pumps

Station will be 'simplex' (1 pump) submersible pump station where pump can be left in place and be turned on manually and turned off automatically or located in yard and installed in wet/drywell plugged into control panel and operated. Pump and control panel will be inside the fence.

Assumptions for analysis

$$\text{Static Head} = 1208.92 - 1181.48 = 27.44'$$

$$\text{Length of } \underset{\text{main}}{\text{force}} = 1100 \text{ LF} + 100 \text{ LF (bends)} = 1200 \text{ LF}$$

$$\text{Pump } F_{\text{ygt}} = 3152-432$$

Hazen Williams Formula

$$Q = 0.285 C D^{2.63} S^{0.54}$$

$$Q = \text{gpm}$$

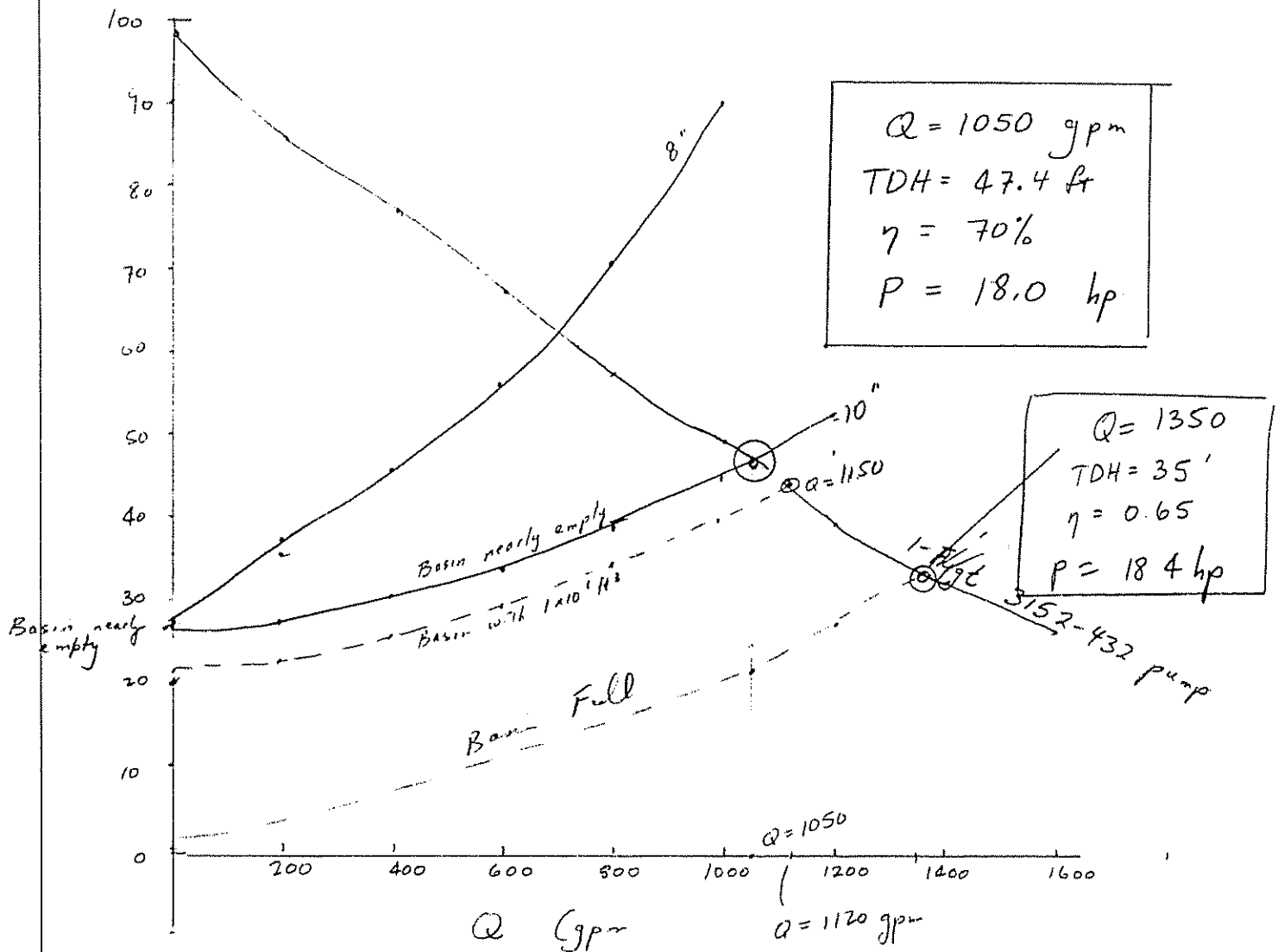
$$D = \text{inches}$$

$$C = 140 \text{ ACP new}$$

$$= 120 \text{ ACP old} \leftarrow \text{Use}$$

$$\text{for } L = 1200 \text{ ft}$$

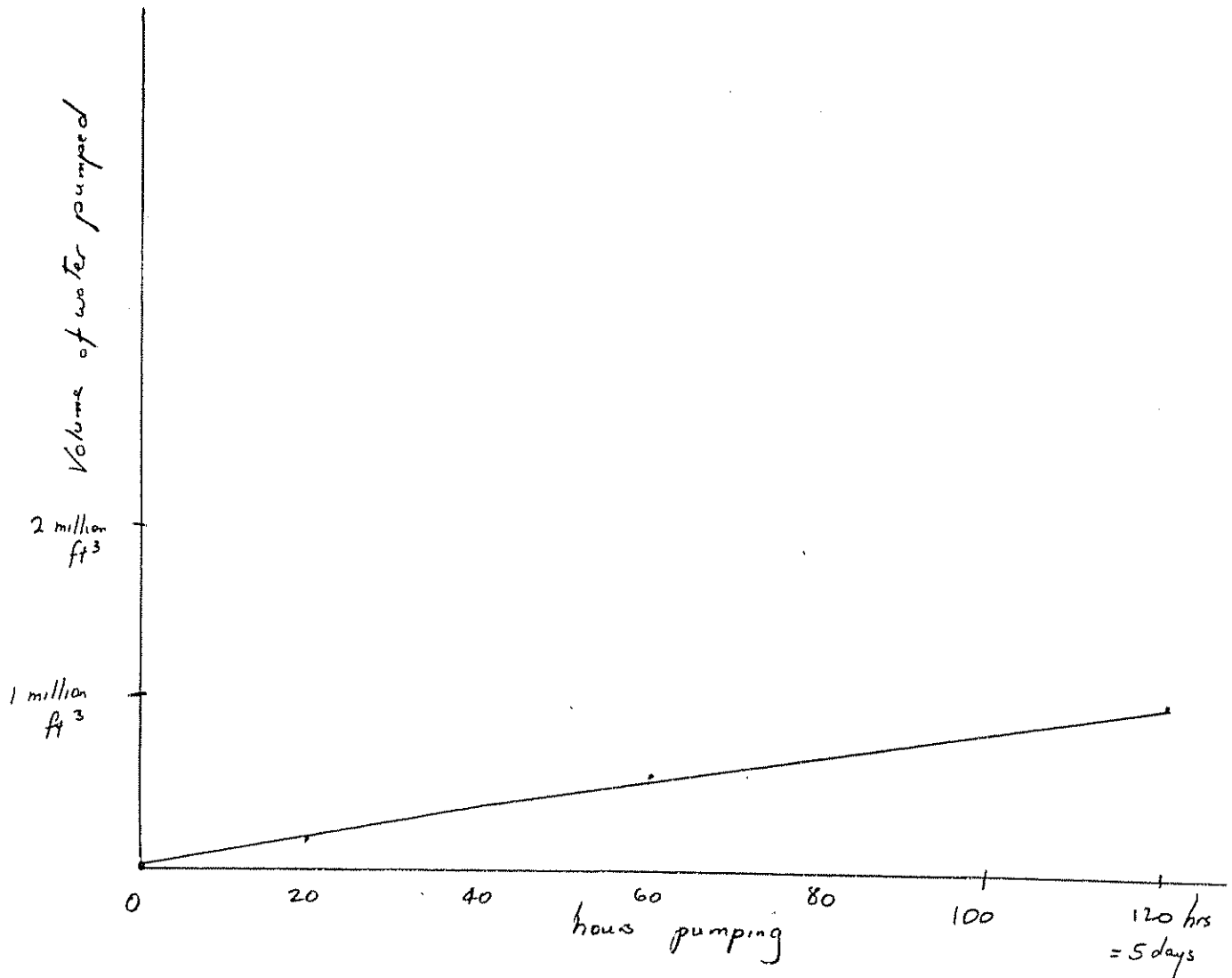
$$HL = SL = \left( \frac{1200 \times Q}{0.285 C D^{2.63}} \right)^{1.85}$$



# Cost Estimate

	Materials (By A.D.O.T.)	Labor (By City of Chandler)
1 Hygt 3152 inclu level sensors + rails	\$ 7200	
1 8" Check Valve	1830	\$2000
1 8" Plug Valve (Flanged with gear operator)	525	
1 Control Panel	2000	500
1 33.20' deep Manhole (5' Dia) (without steps)	1460	5500 (incl. excavator)
1 24x30" Lid	1000	
1 24" Dia Lid	200	
1 33' Ladder	250	
1 Manhole Base conc + rebar	300	150
1 Precast. Cover	450	200
1200 Linear feet 10" dia Class 150 ACP @ \$6.51 / LF	7812	5,000
1 Discharge Headwall + Energy dissipater	500	250
Engineering, Staking + Inspection	\$ 23,527	\$ 4,500
		\$ 18,100

Based on  $1050 \text{ gpm} = 2.34 \text{ cfs}$



5 days pumping  $\approx$  1 million  $\text{ft}^3$  of water.